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(54) Title: A PROCESS FOR THE PREPARATION OF ACYLPHOSPHINES

$$R_{1} = \begin{bmatrix} R_{3} \\ P \end{bmatrix}_{2-m} \begin{bmatrix} O \\ II \\ C - R_{2} \end{bmatrix}_{m} \qquad (I),$$

(57) Abstract: A process for the preparation of acylphosphines of formula (I) wherein m is 1 or 2; R₁, R₂, and R₃ are organic residues derived from aliphatic or aromatic hydrocarbons; by (1) reacting organic phosphorus halides of formula (II) wherein Y is Br or Cl, with an alkali metal in a solvent in the presence of an activator, wherein the alkali metal is present in the form of a dispersion of alkali metal particles having a mean particle size of ≤ 500 µm in the solvent, (2) subsequent reaction with acid halides of formula (III) which process is carried out without isolation of the intermediates. Preferably, R₁, R₂ and R₃ are independently from each other phenyl, naphthyl and bi-phenyl, being unsubstituted or substituted by one to five halogen, C1-C8 alky and/or C1-C8 alkoxy. Most preferably, R1 and R3 are phenyl and R2 is 2,4,6trimethylphenyl. The alkali metal is preferably sodium, the activator is preferably chlorobenzene and/or n-butanol.